

CLAIMS

What is claimed is:

1. A method of shaping a printed circuit board (PCB) having an insertion edge that extends between opposing parallel surfaces of the PCB, the method comprising:

providing a shaping tool; and

forming at least one bevel on the PCB with the shaping tool, without removing material from the PCB, said at least one bevel extending between the insertion edge and one of the opposing parallel surfaces of the PCB.

2. The method of claim 1, wherein forming the at least one bevel on the PCB with the shaping tool comprises:

applying a compressive force with the shaping tool to the PCB.

3. The method of claim 2, wherein applying a compressive force with the shaping tool to the PCB comprises simultaneously applying a compressive force with the shaping tool to:

the insertion edge of the PCB; and

the opposing parallel surfaces of the PCB.

4. The method of claim 1, wherein:

the PCB has a pin array disposed along the insertion edge; and

the insertion edge is perpendicular to the opposing parallel surfaces of the PCB.

5. The method of claim 1, wherein:

the shaping tool includes a slot having a planar surface thereon; and  
forming the at least one bevel on the PCB with the shaping tool comprises  
applying a compressive force to the PCB with the planar surface of the slot of the  
shaping tool.

6. The method of claim 1, wherein:

the shaping tool is an articulating press having a pair of shaped surfaces  
thereon; and  
forming the at least one bevel on the PCB with the shaping tool comprises:  
moving the pair of shaped surfaces to apply a compressive force to the  
insertion edge of the PCB, and wherein a respective one of the pair of shaped  
surfaces applies a compressive force to a respective one of the opposing  
parallel surfaces of the PCB.

7. The method of claim 1, wherein:

the insertion edge is perpendicular to the opposing parallel surfaces of the  
PCB; and  
the at least one bevel has a height in a range from about 20 thousandths of an  
inch to about 1 thousandth of an inch.

8. The method of claim 7, wherein the height of the at least one bevel is in a  
range from about 4 thousandths of an inch to about 7 thousandths of an inch.

9. The method of claim 1, wherein the at least one bevel is a plane that forms  
an angle with respect to the insertion edge in a range from about 15° to about 60°.

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10. The method of claim 1, wherein the at least one bevel is a plane that forms an angle with respect to the insertion edge in a range from about 20° to about 40°.

11. The method of claim 1, wherein the PCB is of a type selected from the group consisting of a memory module, a modem card, a video card, and an audio card.

- 1           12. A method of shaping a printed circuit board (PCB) having an insertion edge  
2 that extends between opposing parallel surfaces of the PCB, the method comprising:  
3           providing a wheel having a shaped surface thereon; and  
4           forming at least one bevel on the PCB by applying a compressive force to the  
5 PCB with the shaped surface of the wheel by rolling the shaped surface of the wheel  
6 against the PCB;  
7           wherein said at least one bevel:  
8                   is formed without removing material from the PCB; and  
9                   extends between the insertion edge and one of the opposing  
10                  parallel surfaces of the PCB.  
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12           13. The method of claim 12, wherein:  
13                  the PCB includes a leading edge that is opposite of and parallel to a trailing  
14                  edge;  
15                  the insertion edge extends between the leading edge and the trailing edge; and  
16                  forming at least one bevel on the PCB further comprises rolling the shaped  
17                  surface of the wheel against the PCB from the leading edge toward the trailing edge.  
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19           14. The method of claim 13, wherein the shaped surface of the wheel is rolled  
20 against the PCB from the leading edge toward the trailing edge while applying a compressive  
21 force therebetween in a range from about 15 psi to about 25 psi.  
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1           15. A method of shaping a printed circuit board (PCB) having an insertion edge  
2 that extends between opposing parallel surfaces of the PCB, the method comprising:

3                 providing a shaping tool; and

4                 forming an opposing, adjacent pair of bevels on the PCB with the shaping  
5 tool, without removing material from the PCB, said pair of bevels extending  
6 between the insertion edge and the opposing parallel surfaces of the PCB.

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8           16. The method of claim 15, wherein forming the pair of bevels on the PCB with  
9 the shaping tool comprises:

10                applying a compressive force with the shaping tool to the PCB.

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12           17. The method of claim 15, wherein:

13                the insertion edge is perpendicular to the opposing parallel surfaces of the  
14 PCB; and

15                the pair of bevels have a height in a range from about 20 thousandths of an  
16 inch to about 1 thousandth of an inch.

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18           18. The method of claim 15, wherein each bevel in the pair of bevels is a plane  
19 that forms an angle with respect to the insertion edge in a range from about 15° to about 60°.  
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1           19. A method of shaping a printed circuit board (PCB) having an insertion edge  
2 that extends between opposing parallel surfaces of the PCB, the method comprising:  
3           providing a wheel having a shaped surface thereon; and  
4           forming an opposing, adjacent pair of bevels on the PCB by applying a  
5 compressive force to the PCB with the shaped surface of the wheel by rolling the  
6 shaped surface of the wheel against the PCB;  
7           wherein each bevel in said pair of bevels:  
8                       is formed without removing material from the PCB; and  
9                       extends between the insertion edge and one of the opposing  
10 parallel surfaces of the PCB;  
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21. A method of shaping a printed circuit board (PCB), the method comprising:  
providing a PCB having an insertion edge that extends between opposing parallel surfaces of the PCB; and  
forming an opposing, adjacent pair of bevels on the PCB, without removing material from the PCB, each bevel in said pair of bevels extending between the insertion edge and one of the opposing parallel surfaces of the PCB.